Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): Highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymers wherein said biocompatible polymer does not swell upon immersion in an aqueous solution.

Claim 2 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymers of claim 1 wherein said polymer forms micro-beads.

Claim 3 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymers of claim 1 wherein said polymer forms amorphous masses.

Claim 4 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymers of claim 2 wherein said micro-beads have diameters ranging from approximately 1 μm to approximately 100 μm.

Claim 5 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymers of claim 2 wherein said micro-beads have pores.

Claim 6 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymers of claim 5 wherein said micro-beads have pores ranging in size from approximately 5 to 500,000 Å.

Claim 7 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymers of claim 3 wherein said amorphous masses have pores.

Claim 8 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymers of claim 3 wherein said amorphous masses have pores ranging in size from approximately ranging from 5 to 500,000 Å.

Claim 9 (previously presented): A highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated pentaethylene hexamine derivatized form of polydivinylbenzene according to claims 1, 2, 3, 4, 5, 6, 7 or 8.

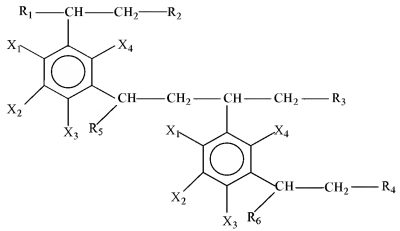
Claim 10 (previously presented): A highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible methoxymethyl-protected monodiazeniumdiolate of piperazine derivatized form of polydivinylbenzene according to claims 1, 2, 3, 4, 5, 6, 7 or 8.

Claim 11 (previously presented): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 9 further comprising a micro-bead having a diameter ranging from 1 μm to approximately 100 μm.

Claim 12 (previously presented): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 9 further comprising a micro-bead having pores ranging in size from approximately ranging from 5 to 500,000 Å.

Claim 13 (previously presented): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 9 further comprising amorphous masses having pores ranging in size from approximately ranging from 5 to 500,000 Å.

Claim14 (previously presented): A highly cross-linked, extremely hydrophobic nitric oxide releasing biocompatible polymer wherein said biocompatible polymer is a polyamine derivatized form of polydivinylbenzene having the general formula:



(1)

wherein R_1 through R_4 are the same or different and may be H, phenyl, benzyl, vinylbenzene, divinylbenzene un-substituted and substituted alkyl and substituted and un-substituted aryl groups, X_{1-4} are same or different and may be H, a halogen, an un-substituted or substituted alkyl and substituted or unsubstituted aryl groups providing that the resulting polymeric backbone remains hydrophobic and wherein at least one of R_5 and R_6 is:

wherein R_7 is a hydrophobic polymer backbone, R_8 may be nothing or a C_{1-12} unbranched or branched alkyl group and R_{9-13} may be H or $N_2O_2^-$ providing that at least one of R_{9-13} is $N_2O_2^-$; and

wherein said biocompatible polymer does not swell upon immersion in an aqueous solution.

Claim 15 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 14 wherein said polymer forms micro-beads.

Claim 16 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 14 wherein said polymer forms amorphous masses.

Claim 17 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 14 wherein said micro-beads have diameters ranging from approximately 1 μm to approximately 100 μm.

Claim 18 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 14 wherein said micro-beads have pores.

Claim 19 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 14 wherein said micro-beads have pores ranging in size from approximately 5 to 500,000 Å.

Claim 20 (original): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 14 wherein said amorphous masses have pores ranging in size from approximately 5 to 500,000 Å.

Claim 21 (previously presented): A therapeutic agent comprising the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 14, 15, 16, 17, 18 , 19 or 20.

Claim 22 (previously presented): A medical device comprising a highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymer, said medical device selected from the group consisting of stents, vascular grafts, pacemaker leads, heart valves, electrodes, sensors, trocars, guide wires, catheters, penile implants, condoms, tampons, sanitary napkins, ocular lenses, sling materials, sutures, wound dressings/bandages, blood collection bags and storage tubes, tubing used for blood transfusions and hemodialysis, and the like according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 14, 15, 16, 17, 18 , 19 or 20.

Claim 23 (previously presented): A medical device coating comprising a highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymer, said medical device coating selected from the group consisting of stents, vascular grafts, pacemaker leads, heart valves, electrodes, sensors, trocars, guide wires, catheters, penile implants, condoms, tampons, sanitary napkins, ocular lenses, sling materials, sutures, wound dressings/bandages,

blood collection bags and storage tubes, tubing used for blood transfusions and hemodialysis, and the like according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 14, 15, 16, 17, 18 , 19 or 20.

Claim 24 (previously presented): A therapeutic agent comprising the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polymers according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 14, 15, 16, 17, 18, 19 or 20.

Claim 25 (previously presented): A medical device comprising a highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polymer, said medical device selected from the group consisting of stents, vascular grafts, pacemaker leads, heart valves, electrodes, sensors, trocars, guide wires, catheters, penile implants, condoms, tampons, sanitary napkins, ocular lenses, sling materials, sutures, wound dressings/bandages, blood collection bags and storage tubes, tubing used for blood transfusions and hemodialysis, and the like according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 14, 15, 16, 17, 18 , 19 or 20.

Claim 26 (previously presented): A medical device coating comprising a highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polymer, said medical device coating selected from the group consisting of stents, vascular grafts, pacemaker leads, heart valves, electrodes, sensors, trocars, guide wires, catheters, penile implants, condoms, tampons, sanitary napkins, ocular lenses, sling materials, sutures, wound dressings/bandages, blood collection bags and storage tubes, tubing used for blood transfusions and hemodialysis, and the like according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 14, 15, 16, 17, 18 , 19 or 20.

Claims 27-32 (cancelled)

Claim 33 (previously presented): A method for treating infections in a human or an animal comprising:

providing a highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polymer comprising a stent, trocar, guide wire, tampon,

sanitary napkin, wound dressing/bandage, vascular graft or suture, wherein said biocompatible polymer does not swell upon immersion in an aqueous solution and

administering said polymer to a human or an animal.

Claim 34 (previously presented): A method for inhibiting or treating blood coagulation and maintaining an aseptic environment during blood transfusions, hemodialysis, and the administration of other blood components via tubing for a human or an animal comprising:

blending or co-polymerizing tubing with highly cross-linked, extremely hydrophobic biocompatible polydiazeniumdiolated polymers wherein said biocompatible polymer does not swell upon immersion in an aqueous solution.

Claim 35 (previously presented) A method for storing mammalian blood thrombocytes comprising a collection and storage device that prevents blood coagulation and maintains an aseptic environment for human or animal blood comprising:

collecting fresh blood;

separating said thrombocytes from said blood;

placing said isolated thrombocytes into a blood storage bag comprising a highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polymer wherein said biocompatible polymer does not swell upon immersion in an aqueous solution.

Claim 36 (previously presented): The medical device according to claim 25 wherein said extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polymer is a polyamine-functionalized polymer.

Claim 37 (previously presented): The medical device according to claim 36 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymer forms micro-beads.

Claim 38 (previously presented): The medical device according to claim 36 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymer forms amorphous masses.

Claim 39 (previously presented): The medical device according to claim 37 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymer micro-beads have diameters ranging from approximately 1 μm to approximately 100 μm.

Claim 40 (previously presented): The medical device according to claim 37 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymer micro-beads have pores.

Claim 41 (previously presented): The medical device according to claim 37 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymer micro-beads have pores ranging in size from approximately 5 to 500,000 Å.

Claim 42 (previously presented): The medical device according to claim 38 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymer amorphous masses have pores.

Claim 43 (previously presented): The medical device according to claim 38 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymer amorphous masses have pores ranging in size from approximately ranging from 5 to 500,000 Å.

Claim 44 (previously presented): The medical device according to claim 25 wherein said medical device is selected from the group consisting of stents, vascular grafts, pacemaker leads, heart valves, electrodes, sensors, trocars, guide wires, catheters, penile implants, condoms, tampons, sanitary napkins, ocular lenses, sling materials, sutures, wound dressings/bandages, blood collection bags, storage tubes, and tubing.

Claim 45 (previously presented): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 10 further comprising a micro-bead having a diameter ranging from 1 μm to approximately 100 μm.

Claim 46 (previously presented): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 10 further comprising a micro-bead having pores ranging in size from approximately ranging from 5 to 500,000 Å.

Claim 47 (previously presented): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polymers of claim 10 further comprising amorphous masses having pores ranging in size from approximately ranging from 5 to 500,000 Å.

Claim 48 (previously presented): The highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazeniumdiolated polyamine-functionalized polymers of either of claims 1 or 14 wherein said aqueous solution is a bodily fluid.

Claim 49 (previously presented): The method of any of claims 33, 34 or 35, wherein said aqueous solution is a bodily fluid.